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AUTHOR Okby, Mamud
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ABSTRACT

The individual components of language -- on the semantic, syntactic, and phonological levels -- mean little or nothing as individual constructs. Language research must proceed according to a concept of linguistic structure which reflects the correlation of elements within and between levels of structure. (VM)

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Mamud Okby

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PSYCHOLINGUISTIC INSIGHTS INTO THE NOTION OF STRUCTURE

Mamud Okby

> It is not possible for linguists to hand over
> phonetics to physics, and meaning to sociology,
> as some have proposed, without making structural
> linguistics utterly sterile, a risk of which
> this subject is already in great danger.[1]

In the early Fifties, when linguistic science was indentified with 'structural linguistics', and when the latter was almost exclusively limited to the study of the phonogrammatic constituents of what the Generative Transformationalists now call 'surface structure', enthusiastic proponents of 'Structuralism' were not interested in correlating surface structure with anything but itself. They had their misgivings about any reference to meaning as entailing a subjectivity of approach, which could not be followed at a risk of losing the rigor of scientific investigation, as was characteristic of their research.[2] However, it would be unfair to claim, as indeed some people do, that the Structuralists, as a rule, underestimated the semantic component in the study of language, or that they were unaware of the role of syntactic variation in the expression of meaning. I think all we can say in essence about their rather sharp focus on the phonogrammatic string is that it left out a substantial area for subsequent investigation. And yet, the Structuralists did point towards a more comprehensive theory of language, simply through upholding the concept of 'structure', which is now more fully utilized, upon the realization that it provides the basic parameter for all integrative research in linguistics.

Today, when 'Structuralism' is assumed to be fading out of existence, it is the author's contention that it is not; that it is simply undergoing a process of revival in a new key. It is hypothesized in this paper that the concept of 'structure' in linguistics is currently spelled out with such articulation as would surpass the wildest expectations of those who professed 'Structuralism' as an academic creed. The present focus on Generative-Transformational grammar, on Parametric theory, and on Contextual theory at large in the study of human behavior marks a firmer grasp of the full implications of the notion of 'structure', based on a discovery of its psychological foundations, and aimed at the necessary unification of the theory of language as form inseparable from meaning.[3]

In order to follow this line of argument, it is necessary for the student of linguistics to take a fresh look at some of the basic terminology needed for an unbiased discussion of the concept under observation, namely 'linguistic structure'.

To begin with, what is *grammar* after all? Let us not persuade ourselves that gramma. stands for the package containing knowledge or description of the two linguistic systems known as 'morphology' and 'syntax'. If we did, we would just be following a conventional attempt at the classification and naming of data. Meanwhile, let us not think of grammar as that entity which has been labelled 'Traditional', 'Structural', and 'Generative-Transformational' in some sort of chronological sequence.

For our purpose, it would be more profitable to give grammar a broader definition of parametric nature, that would cut across linguistic categories, and tie them up within the total framework of verbal communication. Some such definition would seek to articulate an organizational phenomenon underlying all manifestations of factorial complexity in human behavior; it would focus on correlations of elements in a strict sequential order and otherwise. To put it differently, in as much as it pertains to human perception, grammar stands for those organizational features that help one structure the elements of a perceptual field. Limited to verbal behavior, grammar may be studied at three levels: semantic, syntactic, and phonological. At each of these levels, constituent elements are viewed as tacking together in perception, forming three interrelated types of structure.

From a communication point of view, the basic structure is *semantic*. In overt speech manifestation, it is normally represented by the lexical components of an utterance, including those that fulfill relational functions. For instance, consider the meaning of the word 'car'. In order to perceive what this word stands for, one has to synthesize a construct of elements including such items as 'body', 'motor', 'wheels', etc. And yet the total configuration, which is much more than the addition of these parts, would become comparatively less nebulous with the addition of such items as 'motor' in 'motor car', 'tram' in 'tram car', or even of 'the' and 'this' in 'the car' and 'this car'.

From this simple observation, we can state at least three principles that seem to operate: 1) that the individual lexical components of an utterance stand for semantic constructs; 2) that when these constructs are combined in perception, they get modified in the process; 3) that this is applicable to one's perception of the two major categories of 'words' known as 'content words', and 'structure words'. Even when it comes to an item like the preposition 'on', a so-called 'structure word', we will find that its meaning as 'a position above and in contact with a supporting surface' remains nebulous until it gets combined with another semantic construct in phrase form. Accordingly, locating 'a dime *on* the floor' is different from 'a hat *on* somebody's head', from 'a shoe *on* somebody's foot'. In spite of the basic similarity, these three occurrences of *on* stand for slightly different constructs. Additional information is always needed

from context to answer such questions as '*On* where?', '*On* how?', etc. Hence, reference to certain items as 'obligatory' often indicates that these items are indispensable for adequate communication.

Luckily, we can always provide some context for our utterance, however short or limited they may be. But the elements of a verbal context are not haphazardly grouped or combined. They congregate according to the restricted order of the second type of structure, namely the *syntactic*. The utterance 'husband the' does not reflect a meaningful organization in English speech. Reverse the order of these two words, and at once 'things' become meaningful. Now, here is an interesting question: Is meaningfulness attached to syntactic grouping as such, or to the semantic outcome of this syntactic grouping, or to both? In this connection, it might be refreshing to reflect on the superficial controversy between extremists; those who believe in the supersession of 'form' and those who believe in the supersession of 'meaning'; those inclined to strip syntax of all meaning, and those who think of syntax as the outcome of a semantic 'melange'. Obviously, the fact that the elements of syntax are formative and relational features does not nullify the fact that these features pertain to representations of semantic constructs. Meanwhile, the fact that syntactic grouping is strictly coded, thereby commanding automatic response from force of habit, does not cancel out the simultaneous choices made at the level of semantic representation. Therefore, even though syntactic grouping may have meaning 'per se' at one level, as may be demonstrated through the use of nonsense words in grammatical utterances, yet undoubtedly it becomes more meaningful when coupled with semantic grouping. If syntactic grouping has meaning for us and the meaning is 'structural', semantic grouping also has meaning, and the meaning is 'structural'. So the case could not be one of syntax without meaning versus syntax with meaning. This is sheer contradiction in terms. Semantic and syntactic structures would have to interlock, as indeed they do.

Finally, let us take a look at the structure of language as a Phonological product. It has been claimed by extremists that, at this level of analysis, language could be 'profitably studied' without reference to meaning.[4] In terms of the developing integrative approach, however, as long as the phonological aspect of language is strictly coded, as long as it is grammatical, it would be worth our while not only to describe its elements, but also its permitted combinatorial characteristics, or rather, the features that make sound combinations or sound correlations meaningful, or intelligible.

Whether segmental or sequential, the distinctive features of speech are normally recognized and produced according to structural principles of correlation. One's awareness of these features may be accounted for

in terms of a developed sensitivity to occurrences involving the operation of such organizational principles as 'similarity', 'contiguity', 'contrast', etc. Accordingly, the phonemes /p/, /t/, /k/, and /b/, /d/, /g/, for instance, would get correlated in one's perception as voiceless versus voiced counterparts sharing the same points of articulation. This is an instance of a phonological meaningful relationship at the segmental level. Similarly, an intonation contour is recognized as rising or falling only in comparison with preceding points of that same contour. The same applies to other sequential features such as stress and juncture. In each case, the language user responds to structures of relationships involving a minimum of two elements, and constituting the meaningfulness of operation at the phonological level as such; that is, to say nothing of the access to semantic and syntactic levels of structure provided by the phonogrammatic string.

To sum up, the development of a unified theory of language–which is a much more significant issue than to pledge undivided devotion to one school or another – impinges on our readiness to investigate phenomena reflecting the correlation of elements within and between levels of structure. The semantic components of our utterances mean little or nothing as individual constructs; they must be combined with other constructs, or rather put into some syntactic structure to reduce semantic noise in communication. Meanwhile, syntactic features mean little or nothing as empty correlatives; they must carry the semantic load for which messages are encoded and decoded. As for the phonological components of the surface structure, they too could be utterly meaningless, without the necessary correlations that bind tokens in their multiplicity under each significant type of construct, simultaneously cutting across sign-significate relationships. Such a view of the concept of 'linguistic structure' is indeed basic to all enquiries aimed at the discovery of additional parameters to guide research along integrative lines. The next significant point of investigation to follow from these basic assumptions might perhaps be related to the conditions determining acceptability or intelligibility at each level of structure. It is very likely that these conditions should have in the psychology of perception some common denominator or denominators at all levels.

1
2 Joshua Whatmough, *Language: A Modern Synthesis* (N.Y., 1956), p. 145.

3 B. Block, "A Set of Postulates for Phonemic Analysis," *Language*, XXIV (1948), pp. 3-46.

"The person who has acquired knowledge of a language has internalized a system of rules that relate sound and meaning in a particular way. The linguist constructing a grammar of a language is in effect proposing a hypothesis concerning this internalized system." See Noam Chomsky, *Language and Mind* (N.Y., 1968), p. 23.

4 "It is certainly possible to establish phonemic systems without having recourse to meaning at all. In fact, I have tried to do so in the present study." See C.L. Ebeling, *Linguistic Units* (The Hague, 1960), p. 83.

State University of New York
at Binghamton